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APPLICATION FOR LETTERS PATENT

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INVENTION : GAMING SYSTEM HAVING TWO GAME  
DISPLAYS AND METHOD OF PLAY

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TO ALL WHOM IT MAY CONCERN:

Be it known that I, the above-identified applicant, have made a certain new and useful invention in a Gaming System Having Two Game Displays and Method of Play of which the following is a specification.

GAMING SYSTEM HAVING TWO GAME DISPLAYS  
AND METHOD OF PLAY

SPECIFICATION

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CROSS-REFERENCE TO RELATED APPLICATION

This application claims the benefit of U.S. Provisional Application Serial Number 60/438,359, filed January 7, 2003, entitled Gaming System Having Two Game Displays and Method of Play.

BACKGROUND OF THE INVENTION

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Reel slot machines have been used in gaming establishments for more than one hundred years. The traditional reel slot machine has three mechanical reels that rotate around a common horizontal axis. A reel strip is attached around the circumference of each slot reel and the reel strip contains a plurality of symbols thereon. As each reel comes to a stop, a symbol on the perimeter of the reel strip is displayed on a horizontal payline on the face of the gaming machine.

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If the symbols that align on the payline match one of a preselected winning combination, the player is a winner.

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From the traditional three reel, single payline slot machine, new slot machine concepts have evolved. Slot machines have developed that have multiple paylines, such as additional horizontal paylines, diagonal paylines, and even V-shaped paylines. The number of reels have also been increased beyond the three reel slot machines to include four reels, five reels and, for example, ten reels.

Besides using mechanical reels, slot machines have been developed that use video representations of spinning reels. However, on a mechanical spinning reel slot machine, a player

has a feel for the number of symbols that are located on the reel strip which is mounted around the circumference of the spinning reel and the player may perceive that he or she knows the odds of each symbol appearing on the payline.

One of the more popular video reel slot machines in the world that has been created is a five reel machine. These, five reel machines may have, for example, nine different paylines based on three rows and five columns of symbols. Here, each coin or token or credit wagered by the player activates a payline.

A plurality of winning symbol combinations are provided so that the player has a large number of various opportunities to win, depending upon which symbols are displayed in particular locations when the reels stop spinning.

In order to improve the player appeal of mechanical spinning reel slot machines, there have been slot machines that include a secondary event. In secondary event gaming machines, the player first plays a main game. If a preselected event occurs during the play of the main game, the player is provided with a secondary event which allows the player an opportunity to win a bonus payout.

U.S. Patent No. 6,464,582 (Baerlocher et al.) is directed to a gaming device with a bonus scheme which includes a plurality of value sets and associated value set symbols. The player chooses one of the value set symbols. The player can accept an award associated with the value set symbol, or, instead, save one or more values in the selected value set and select another value set symbol which includes the saved values.

European Patent Publication No. 0 609 637 (Sega, S.A.) is directed to a slot machine in which a set of first symbols is used in a conventional manner. A second set of symbols is also used, one of which is transferrable to replace one of the symbols in the first set of symbols.

U.S. Patent No. 5,997,401 (Crawford) is directed to a method for operating a rotating type slot machine (mechanical or video) which allows a player to save in memory one or more symbols from one or more previous games and use those symbols in a current game to obtain a winning combination. The symbols that have been saved are displayed above the main set of slot symbols.

U.S. Patent No. 6,461,241 (Webb et al.) is directed to a gaming device with a primary game scheme which includes one or more symbol generators and one or more secondary games. When the symbol generator generates one or more predetermined symbols, the gaming device operates one or more secondary games. If the player reaches a win condition in one or more secondary games, the gaming device provides the player with an award.

U.S. Patent No. 6,186,894 (Mayeroff) is directed to a slot machine configured to have a main game comprising a multi-reel payline mechanical reel or video reel slot arrangement with at least one payline and a secondary event game comprising a multi-reel, one or more payline mechanical slot arrangement. Whenever the player achieves a combination of symbols on the main game that awards the player with the secondary event game, the number of chances provided to the player to play the secondary event game is based on the number of paylines that the player has played on the main game or by the number of credits wagered on each payline. Alternatively, the number of spins awarded to the player on the secondary event game can be determined by the symbol combinations achieved by the player on the main game. All spins of

the three reel secondary event game can be winning spins or, alternatively, the spins on the secondary event reel game can be either winning or losing spins.

U.S. Patent No. 6,165,070 (Nolte et al.) is directed to a video game slot machine program that displays at least a three grid and preferably a nine grid matrix on a monitor. Icons, for example, three sets of twenty-seven symbols, are displayed as “spinning” images. All of one icon and lesser amounts of additional icons are displayed for each reel. An award generator rewards the player when one or more of the fully displayed icons match one of a plurality of winning combinations of icons.

U.S. Patent No. 6,439,995 is directed to a gaming device having a bonus round with multiple selection groups. The bonus round does not end upon an “end bonus” selection; rather, the bonus round ends upon the selection of a predetermined number of selections from the last or final selection group. In one embodiment, the number of selections is determined from a selection group preceding the final selection group. Prior to determining the number of final selection group picks, this invention provides the player with at least one selection group in which the player selects award indicators until selecting an indicator that advances the player to the next selection group.

All references cited herein are incorporated herein by reference in their entireties.

## SUMMARY OF THE INVENTION

The present invention, in its most basic form, is directed to a gaming machine that includes a first display for displaying a subset of symbols from a first set of symbols and a second display for displaying the subset of symbols from the first set of symbols and at least one

additional random symbol. A credit acceptor may be included to accept a wager of at least one credit related to at least one of the first display and the second display. Finally, a payout device for awarding a payout is preferably included if at least one of a preselected winning combination appears on the first and second displays on which a wager has been made. At least one of the first display and the second display preferably has a plurality of paylines. Preferably, the first display is a mechanically operated display and the second display is a video display.

The gaming machine may include a first plurality of reels where each of the first plurality of reels has a plurality of symbols thereon and a first display having a first plurality of symbol display locations. Each first symbol display location is for displaying at least one symbol from each of the first plurality of reels. A second display is included here having a plurality of symbol display locations equal in number to the first plurality of symbol display locations plus at least one additional display location. The second display displays the symbols from each of the first plurality of reels displayed at corresponding symbol display locations and displays a random symbol at each of the additional display locations. A credit acceptor and a payout device are also preferably included. Multiple paylines (including, for example, a matrix of each entire display) may be used. Again, preferably, the first display is a mechanically operated display and the second display is a video display.

In one particularly preferred embodiment, a gaming machine is provided which includes a first plurality of reels having a payline and a second plurality of reels having a payline, the second plurality of reels equal in number to the first plurality of reels plus at least one additional reel, each reel having a plurality of symbols thereon. The gaming machine further includes a credit acceptor to accept a wager of at least one credit on at least one payline and a first activator

to activate each of the reels of the first plurality of reels to spin and then stop spinning such that one of the plurality of symbols lands on the payline for each of the first plurality of reels. A reader determines the symbols that landed on the payline of the first plurality of reels and an assignor assigns at least one of the symbols that appear on the payline when the reels of the first plurality of reels stop spinning to the payline of the second plurality of reels. A second activator activates the second plurality of reels (that have not yet been assigned a symbol) to cause the reels to spin and then stop spinning to display a symbol. A payout device is included for awarding a payout if at least one of a preselected winning combination appears on any of the paylines on which a wager has been made.

Here, the first activator preferably activates each of the reels of the first plurality of reels to spin and then stop spinning such that one of the plurality of symbols lands on each payline for each of the first plurality of reels, wherein the reader determines the symbols that landed on each payline of the first plurality of reels, and wherein the assignor assigns at least one of the symbols that appear on each payline when the reels of the first plurality of reels stop spinning to a respective payline of the second plurality of reels.

Preferably, the first plurality of reels includes three reels and the second plurality of reels includes five reels.

A method of playing a gaming machine is also included. The method includes the steps of displaying a subset of symbols from a first set of symbols on a first display, and displaying the subset of symbols from the first set of symbols and at least one additional random symbol on a second display. This method may include the step of wagering at least one credit related to at least one of the first display and the second display and awarding a payout if at least one of a

preselected winning combination appears on the first and second displays on which a wager has been made.

In one preferred embodiment, the method of playing a gaming machine includes the steps of providing a first plurality of reels where each of the first plurality of reels has a plurality of symbols thereon. At least one symbol from each of the first plurality of reels is displayed on a first display having a first plurality of symbol display locations. The symbols from each of the first plurality of reels are displayed at corresponding symbol display locations on a second display having a second plurality of symbol display locations. The second plurality of symbol display locations is equal in number to the first plurality of symbol display locations plus at least one additional display location. A random symbol is displayed at each of the at least one additional symbol display location of the second plurality of symbol display locations. Steps of wagering and awarding a payout may be included.

In one particularly preferred embodiment of the method of the present invention, a method of playing a gaming machine is provided where the gaming machine has a first plurality of reels having a payline and a second plurality of reels having a payline, and the second plurality of reels is equal in number to the first plurality of reels plus at least one additional reel. Each reel has a plurality of symbols thereon. The method includes the steps of making a wager of at least one credit on at least one payline and activating the first plurality of reels to spin. When the reels stop spinning, the symbols that appear on the payline are determined and then at least one of the symbols that appear on the payline when the reels stop spinning is assigned to the second plurality of reels payline. The second plurality of reels is activated to cause the reels to spin that have not yet been assigned a symbol to display a symbol. Finally, the method includes the step

of awarding a payout if at least one of a preselected winning combinations appear on any of the paylines on which a wager has been made.

Here, the step of making a wager of at least one credit on at least one payline may include making a wager on a plurality of paylines of the first plurality of reels paylines and/or the second plurality of reels paylines. The steps of activating the first plurality of reels to spin and determining which symbols appear on the payline may include determining which symbols appear on a plurality of paylines. The step of assigning may include assigning at least one of the symbols that appear on each of the plurality of paylines of the first plurality of reels to each of the paylines of the second plurality of reels.

#### BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

The invention will be described in conjunction with the following drawings in which like reference numerals designate like elements and wherein:

Fig. 1 is an isometric view of a gaming machine in accordance with one preferred embodiment of the present invention; and

FIG. 2 is a front elevational view of the gaming machine of FIG. 1.

#### DETAILED DESCRIPTION OF THE INVENTION

In its most basic configuration, the present invention is directed to a gaming system that has a first display for displaying a subset of symbols from a first set of symbols and a second display for displaying the subset of symbols from the first set of symbols and at least one additional random symbol. A credit acceptor may be used to accept one or more wagers related

to either the first display and/or the second display. A payout device awards a payout if at least one of a preselected winning combination appears on either the first and/or second displays on which a wager has been made. Preferably (but not a requirement), the first display is a mechanically operated display and the second display is a video display.

5           Likewise, in its most broad form, the method for playing the gaming machine of the present invention includes the steps displaying a subset of symbols from a first set of symbols on a first display and displaying the subset of symbols from the first set of symbols and at least one additional random symbol on a second display. Again, wagering of at least one credit related to either the first display and/or the second display may be made. The basic method finally includes  
10           the step of awarding a payout if at least one of a preselected winning combination appears on either the first and/or second displays on which a wager has been made.

Referring now to the figures wherein like part numbers refer to like elements throughout the several views, there is shown in FIGS. 1 and 2 a gaming machine 10 in accordance with one preferred embodiment of the preset invention. As shown, the gaming machine 10 may be of a  
15           standard configuration with a first, primary set of slot reels 12. However, there is also a second set of slot reels 14, preferably located above the first set of slot reels 12. The first set of slot reels 12 is preferably a set of mechanical reels having a set of symbols thereon, while the second set of slot reels 14 is preferably an electronic video-style set of “reels” also which uses a set of symbols. For purposes of the present invention, the term “reel” is intended to include both actual  
20           mechanical reels as used on mechanical type slot machines and video type reels which are intended to operate electronically, through software, as a mechanical type reel. While the first set of slot reels 12 preferably includes the “standard” configuration of three mechanical reels, as few

as one reel or many more reels may be used. The second set of reels 14 has at least one more reel than that of the first set of reels 12.

The gaming machine 10 also preferably includes a pay table 16 which depicts various winning combinations that a player may achieve on each game associated with the first set of reels 12 and the second set of slot reels 14.

Other standard components found on slot machines are also preferably provided including, for example, a button panel 18 upon which are located buttons 18a, 18b, etc. used by the player to operate the gaming machine 10. These buttons may include, for example, a cash-out button 18a and a spin button 18b for the first set of reels 12 and the second set of reels 14 (these may either be combined in a single button or provided as separate buttons). The second set of reels may be automatically spun by the gaming machine, with no action by the player, after the first set of reels 12 stops spinning.

Additionally, the button panel 18 may include selection buttons 18d, 18e, 18f, 18g for use by the player to select which one of multiple paylines 20a, 20b, 20c are active with respect to the first set of reels 12 and which paylines 22a, 22b, 22c are active with respect to the second set of reels 14. Such selection of paylines by a user is well known in the art of gaming machines.

FIGS. 1 and 2 depict only three paylines 20a, 20b, 20c with respect to the first set of reels 12 and either one payline 22a (FIG.1) or three paylines 22a, 22b, 22c (FIG.2) with respect to the second set of reels. The present invention is intended in no way to be limited to such a configuration.

The present invention is intended to encompass one or multiple paylines of any practical number as known in the art for each of the first set of reels 12 and the second set of reels 14. A player

therefore may select, for example, two paylines, *e.g.* paylines 20a, 22b with respect to the first set of reels 14 and one payline 22a with respect to the second set of reels.

Additionally, the gaming machine may include one or more wager selection buttons 18h, 18i, 18j, 18k, 18l that provide for the player to select the number of credits to be wagered on each payline, *e.g.*, a “Bet One” button 18h, a “Bet Two” button 18i, and the like. Thus, in this example of a preferred embodiment, a player may select, for example, three credits, to be wagered at each active payline.

The gaming machine may also include a credit acceptor 24. The credit acceptor may be, for example, a coin acceptor and/or a bill acceptor and/or a token acceptor (for acceptance of magnetically encoded or other type of encoded card) or a biometric scanner for scanning, for example, a fingerprint of a player). Other features common to slot machines may be included, for example, a coin tray 26.

The configuration of the first set of reels 12 may be of standard mechanical or video configuration as are well known in the art of gaming. The first set of reels 12 may preferably include three mechanical reels 12A, 12B, 12C. However, only one reel or numerous reels may be used, for example, five or more reels. The second set of reels 14 (and any additional sets of reels) must include the number of reels as included in the first set of reels 12 plus at least one more reel. For example, if the first set of reels 12 includes three reels, 12A, 12B and 12C, the second set of reels 14 must include at least four reels. In FIGS. 1 and 2, an example with five reels 14A, 14B, 14C, 14D, 14E is shown.

At least some of the reels of the second set of reels 14 must be capable of displaying the identical subset of symbols (of a set of symbols) as is displayed in the first set of reels 12 after

the first set of reels is spun by a player. For example, in the example where the first set of reels includes three reels and the second set of reels includes five reels, after the first set of reels is spun, if the first set of reels displays a subset of two cherries and a bar, a reader in the gaming machine 10 must determine the precise subset of symbols displayed in the first set of reels and display that same subset of symbols on three of the five reels of the second set of reels 14, *e.g.* on reels 14B, 14C and 14D.

The second set of reels 14 is preferably a video-type display of reels, as is well known in the art of gaming. However, it is also possible to design a second set of reels 14 which is a set of mechanical reels that would operate properly in accordance with the present invention, for example, using stepper motors (not shown).

The preferred play proceeds as follows. First, at least one wager is made on the first set of slot reels 12 and/or the second set of slot reels. These wagers may be made in accordance with present technology and therefore may be made on more than one payline that may exist with respect to the sets of slot reels 12, 14 or may be made with respect to a matrix of symbols, for example, nine symbols in three rows. A button 18b is pressed to activate spinning of the first set of slot reels 12 (via a first activator). When the first set of slot reels 12 stops spinning, a subset of symbols appears on the one or more paylines 20a, 20b, 20c, preferably in accordance with a typical slot machine, as is well known. This subset of symbols is read electronically by the gaming machine 10 and, then, the same subset of symbols (or at least one of the same symbols) is assigned to locations along a payline associated with the second set of reels 14. For example, As shown in FIG. 2, a "7", a bar and an orange are shown on payline 20b after the first set of reels 12

is spun. The “7”, the bar and the orange are then displayed on a payline associated with the second set of reels 14.

As discussed above, the second set of reels 14 has at least one additional reel (shown as reels 14A and 14B) associated with the paylines such that if the first set of reels 12 has three  
5 reels, the second set of reels 14 has, for example, five reels, as shown. Therefore, after the first set of three reels 12 has stopped spinning, the second set of reels 14 displays, preferably electronically, five reels with three reels 14B, 14C, 14D, associated with a particular payline, of the five reels having the same symbols displayed as that of the first set of reels 12. The remaining two reels of the five reels of the second set of reels 14 are displayed as “spinning”  
10 reels. At this point, by use of a second activator, either automatically or by a player action (such as pulling a lever or pressing a button), the remaining reels of the second set of reels are activated to stop “spinning.” Finally, the second set of reels 14 displays symbols for each of the five reels 14A, 14B, 14C, 14D and 14E.

An award payout is then provided to the player for winning combinations at paylines for  
15 which a wager has been made. In accordance with the art of conventional slot machines, the payout for each of the first set of reels 12 and the second set of reels 14 is based on any of a number of preselected winning combinations of symbols based on any “paylines” that are available for the particular machine. For example, the first set of reels 12 may be associated with three sets of paylines 20a, 20b, 20c involving a total of nine displayed symbols (three symbols  
20 from each reel) and the second set of reels may be associated with five sets of paylines involving a total of 15 displayed symbols. The awards are based on paylines upon which wagers have previously been associated. For example, at the start of the game, a player may select three

horizontal paylines 20a, 20b, 20c associated with the first set of reels 12 and two more horizontal paylines 22a, 22b, involving various patterns of symbols displayed with respect to the second set of reels 14. Awards are based on winning combinations appearing at the paylines upon which a wager has been placed.

5           While the present example is directed to a primary slot machine having three reels and a secondary slot machine having five reels, the primary slot machine may have as few as one reel and the secondary slot machine may have two or more reels.

          Additionally, it is anticipated that more than just the single secondary set of reels 14 may be used, for example, in addition to the first set of reels, for example, three sets of secondary  
10       reels may be used (not shown) wherein each secondary set of reels displays one or more of the symbols that appear on the first set of reels.

          Optionally, more than one payline may be associated with the first set of reels such that, as shown in FIG. 2, symbols from each payline associated with the first set of reels is displayed on a separate paylines associated with the second set of reels. As can be seen in FIG. 2, with  
15       respect to the first set of reels 12, payline 20b has a seven, a bar and an orange, payline 20a has a bar, a lemon, and an orange, and payline 20c has a lemon, an "S" and a bar. Likewise, with respect to the second set of reels 14, payline 22c has a bar, a lemon and a seven (which is the same as payline 20a), payline 20a has a seven, a bar, and an orange (which is the same as payline 20b) and payline 22b has a lemon, an "S" and a bar (which is the same as payline 20c). Wagers  
20       for each payline may be placed independently.

          Optionally, paylines associated with respect to both the first and second sets of reels may be combined to form a larger jackpot award. For example, a "super-jackpot" may be awarded if

a payline with respect to the first set of reels hits three bars and a payline with respect to the second set of reels also hits three bars.

Additionally, optionally, a player may be given the option to re-spin one or more individual reels by paying one or more additional credits. This may occur after the first set of  
5 reels is spun.

While the invention has been described in detail and with reference to specific examples thereof, it will be apparent to one skilled in the art that various changes and modifications can be made therein without departing from the spirit and scope thereof.